#### **CLAIMS**

### 1. A compound of Formula (I)

$$A^{1} - \begin{bmatrix} R \\ N \end{bmatrix}_{p} Y^{1} - N \begin{bmatrix} R^{1} & R^{2} \\ N & N \end{bmatrix}_{n} A^{2}$$

#### Formula (1)

or a pharmaceutically acceptable salt or physiologically functional derivative thereof, wherein

p is 0;

n is 0;

A<sup>1</sup> is thienyl, optionally substituted with one or more R<sup>3</sup>;

 $Y^1$  is -C(O)-, -C(S)-, or a bond;

R<sup>1</sup> is H or alkyl, cycloalkyl, aryl, or heteroaryl, each of which may be optionally substituted with one or more R<sup>3</sup>;

A<sup>2</sup> is (i) pyridyl, optionally substituted with one or more R<sup>3</sup>; (ii) thienyl, optionally substituted with one or more R<sup>3</sup>; or (iii) pyrrole, optionally substituted with one or more R<sup>3</sup>;

each R<sup>3</sup> independently is OR<sup>4</sup>, SR<sup>4</sup>, hydroxyalkyl, hydroxyalkylamino, cycloalkyl, halogen, haloalkyl, haloalkoxy, NO<sub>2</sub>, CN, SO<sub>2</sub>NR<sup>4</sup>R<sup>5</sup>, CO<sub>2</sub>NR<sup>4</sup>R<sup>5</sup>, COR<sup>4</sup>, CO<sub>2</sub>R<sup>4</sup>, SO<sub>2</sub>R<sup>4</sup>, SO<sub>3</sub>R<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup>, alkyl, aryl, aryl substituted with halogen, or heteroaryl; each R<sup>4</sup> independently is H, alkyl, cycloalkyl, aryl, or heteroaryl; and each R<sup>5</sup> independently is H, O-alkyl, O-aryl, alkyl, heteroaryl, or aryl.

## 2. A compound of Formula (I)

$$A^{1} \underbrace{ \left( \begin{array}{c} R \\ N \end{array} \right)_{p} Y^{1} - N \underbrace{ \left( \begin{array}{c} R^{2} \\ N \end{array} \right)_{n} Y^{2} \underbrace{ \left( \begin{array}{c} R^{2} \\ N \end{array} \right)_{n} A^{2}}_{n} A^{2}$$

Formula (1)

or a pharmaceutically acceptable salt or physiologically functional derivative thereof, wherein

p is 0;

n is 1;

 $A^{1}$  is alkyl, aryl, or heteroaryl, each optionally substituted with one or more  $R^{3}$ ;  $Y^{1}$  is -C(O)-, -C(S)-, or a bond;

R<sup>1</sup> is H or alkyl, cycloalkyl, aryl, or heteroaryl, each of which may be optionally substituted with one or more R<sup>3</sup>;

R<sup>2</sup> is H or alkyl, cycloalkyl, aryl, or heteroaryl, each of which may be optionally substituted with one or more R<sup>3</sup>;

$$Y^2$$
 is -C(O)- or -C(S)-;

 $A^2$  is thienyl, optionally substituted with one or more  $R^3$ ; each  $R^3$  independently is  $OR^4$ ,  $SR^4$ , hydroxyalkyl, hydroxyalkylamino, cycloalkyl, halogen, haloalkyl, haloalkoxy,  $NO_2$ , CN,  $SO_2NR^4R^5$ ,  $CO_2NR^4R^5$ ,  $COR^4$ ,  $CO_2R^4$ ,  $SO_2R^4$ ,  $SO_3R^4$ ,  $NR^4R^5$ , alkyl, aryl, aryl substituted with halogen, or heteroaryl; each  $R^4$  independently is H, alkyl, cycloalkyl, aryl, or heteroaryl; and each  $R^5$  independently is H, O-alkyl, O-aryl, alkyl, heteroaryl, or aryl.

3. The compound of claim 2 wherein A<sup>1</sup> is alkyl, phenyl, pyrimidinyl, pyridinyl, furanyl, thienyl, benzothienyl, pyrrolopyridinyl, or

each of which may be optionally substituted with one or more R<sup>3</sup>.

- 4. The compound of claim 3 where  $R^3$  is  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy, halogen,  $C_{1-6}$  haloalkyl,  $C_{1-6}$  haloalkoxy, cycloalkyl,  $-CO_2CH_3$ , or  $-CO_2CH_2CH_3$ .
- 5. A compound of Formula (I)

$$A^1 \underbrace{ \begin{bmatrix} R \\ N \end{bmatrix}_p Y^1 - N \underbrace{ \begin{bmatrix} R^2 \\ N \end{bmatrix}_r Y^2}_n A^2$$

# Formula (I)

or a pharmaceutically acceptable salt or physiologically functional derivative thereof, wherein

p is 1;

n is 1;

R is H or alkyl, cycloalkyl, aryl, or heteroaryl, each of which may be optionally substituted with one or more R<sup>3</sup>;

A<sup>1</sup> is alkyl, aryl, or heteroaryl, each optionally substituted with one or more R<sup>3</sup>;

 $Y^1$  is -C(O)-, -C(S)-, or a bond;

R<sup>1</sup> is H or alkyl, cycloalkyl, aryl, or heteroaryl, each of which may be optionally substituted with one or more R<sup>3</sup>:

R<sup>2</sup> is H or alkyl, cycloalkyl, aryl, or heteroaryl, each of which may be optionally substituted with one or more R<sup>3</sup>:

 $Y^2$  is -C(O)- or -C(S)-;

A<sup>2</sup> is thienyl, optionally substituted with one or more R<sup>3</sup>; each R<sup>3</sup> independently is OR<sup>4</sup>, SR<sup>4</sup>, hydroxyalkyl, hydroxyalkylamino, cycloalkyl, halogen, haloalkyl, haloalkoxy, NO<sub>2</sub>, CN, SO<sub>2</sub>NR<sup>4</sup>R<sup>5</sup>, CO<sub>2</sub>NR<sup>4</sup>R<sup>5</sup>, COR<sup>4</sup>, CO<sub>2</sub>R<sup>4</sup>, SO<sub>2</sub>R<sup>4</sup>, SO<sub>3</sub>R<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup>, alkyl, aryl, aryl substituted with halogen, or heteroaryl; each R<sup>4</sup> independently is H, alkyl, cycloalkyl, aryl, or heteroaryl; and

each R<sup>5</sup> independently is H, O-alkyl, O-aryl, alkyl, heteroaryl, or aryl.

- 6. The compound of claim 5 wherein  $A^1$  is  $C_{1-12}$  alkyl or phenyl, each optionally substituted with one or more  $R^3$ .
- 7. The compound of claim 1 wherein  $A^1$  is thienyl substituted with  $C_{1-6}$  alkyl, halogen, or  $C_{1-6}$  alkoxy.
- 8. The compound of claim 2 wherein  $A^2$  is thienyl substituted with  $C_{1-6}$  alkyl, halogen, or  $C_{1-6}$  alkoxy.

- 9. The compound of claim 5 wherein  $A^2$  is thienyl substituted with  $C_{1-6}$  alkyl, halogen, or  $C_{1-6}$  alkoxy.
- 10. A method for inhibiting the production of a virulence factor comprising contact with a compound of claim 1.
- 11. A method for inhibiting the production of a virulence factor comprising contact with a compound of claim 2.
- 12. A method for inhibiting the production of a virulence factor comprising contact with a compound of claim 5.
- 13. The method of claim 10 for the treatment or prevention of bacterial damage or disease.
- 14. The method of claim 11 for the treatment or prevention of bacterial damage or disease.
- 15. The method of claim 12 for the treatment or prevention of bacterial damage or disease.
- 16. The method of claim 13 wherein the bacteria is *Pseudomonas aeruginosa* or *Burkholderia cepacia*.
- 17. The method of claim 14 wherein the bacteria is *Pseudomonas aeruginosa* or *Burkholderia cepacia*.
- 18. The method of claim 15 wherein the bacteria is *Pseudomonas aeruginosa* or *Burkholderia cepacia*.
- 19. A composition for inhibiting biofilm formation comprising a compound of claim 1.
- 20. A composition for inhibiting biofilm formation comprising a compound of claim 2.

- 21. A composition for inhibiting biofilm formation comprising a compound of claim 5.
- 22. A compound selected from

123

125

or

or a pharmaceutically acceptable salt or physiologically acceptable derivative thereof.

23. A method for inhibiting the production of a virulence factor comprising contact with a compound of claim 22.

- 24. A composition for inhibiting biofilm formation comprising a compound of claim
- 22.